



Cabinet

Minute of Decision

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Restoring New Zealand's Freshwater and Waterways

Portfolios Environment / Agriculture

On 25 June 2018, Cabinet:

Vision

1 **agreed** to affirm that:

- 1.1 freshwater is a precious and limited resource and a taonga of huge significance, and at the heart of what it is to be a New Zealander;
- 1.2 access to safe drinking water is a basic right, and drinking water sources must be safeguarded;
- 1.3 the life-supporting capacity of water is critical for the habitat of indigenous freshwater species and trout and salmon;
- 1.4 New Zealanders rightly consider they have a birthright to swim safely in New Zealand's rivers and lakes and at beaches, and that waterways should be fishable and safe for food gathering;
- 1.5 Mauri must be restored to waterways subjected to pollution and practices that have compromised the relationship that Māori have traditionally had with these taonga;
- 1.6 if each of New Zealand's local rivers is clean enough to swim in safely and life-supporting for freshwater species, then all New Zealand rivers will be;

Establishing a work programme

2 **agreed** that the government's work programme will be called *Essential Freshwater – Healthy Water, Fairly Allocated* (the Essential Freshwater work programme), and comprise three key parts:

- 2.1 *stopping further degradation and loss* – taking a series of actions now to stop the state of New Zealand's freshwater resources, waterways and ecosystems getting worse (i.e. to stop adding to their degradation and loss), and to start making immediate improvements so that water quality is materially improving within five years;

- 2.2 *reversing past damage* – promoting restoration activity to bring New Zealand’s freshwater resources, waterways and ecosystems to a healthy state within a generation, including through a new Freshwater National Policy Statement and other legal instruments;
- 2.3 *addressing water allocation issues* – working to achieve efficient and fair allocation of freshwater resources, having regard to all interests including Māori, and existing and potential new users;
- 3 **noted** that everyone having access to safe drinking water is a further freshwater goal that will be worked on across the environment and local government portfolios;
- 4 **noted** that in support of the Essential Freshwater work programme, there will be processes to:
- 4.1 engage New Zealanders;
- 4.2 fix water and land use fundamentals;
- 4.3 track and demonstrate progress;

Adopting principles to guide work on freshwater

- 5 **agreed** that in advancing the government’s Essential Freshwater work programme, the following principles will apply:
- 5.1 ensure that central government plays an effective leadership role on freshwater issues, while retaining appropriate decision-making at local government level;
- 5.2 establish policies and solutions that are enduring, which means they need to be science-based, reflect mātauranga Māori, predictable, understood by the public, and underpinned by effective regulation and enforcement;
- 5.3 work with landowners, water users, Māori, communities and local government to this end;
- 5.4 provide for flexibility and adaptability so that as knowledge and technology evolve, and the climate changes, policy settings and rules can also adapt;
- 5.5 promote an integrated approach to freshwater management, within catchments, across issues, and with the marine and coastal environment;
- 5.6 promote sound environmental outcomes, and in doing so seek to optimise social, cultural, economic development and national identity outcomes;
- 5.7 address the rights and interests of Māori in freshwater and the development aspirations of owners of Māori freehold land, consistent with the Crown’s Treaty obligations;¹
- 5.8 provide for intergenerational equity;
- 5.9 ensure that the benefits of commercial water use are not captured solely by existing users, but that potential new users also have access to water and its benefits;

¹ The phrase “rights and interests” is used as it is the term used by the parties and the courts in the Mighty River Power litigation: *New Zealand Maori Council v Attorney-General* [2013] 3 NZLR 31, though the nature of those rights and interests were not determined by the case.

Establishing a multi-agency taskforce

- 6 **invited** the Minister for the Environment and Minister of Agriculture to establish an officials' taskforce to implement the Essential Freshwater work programme, hosted by the Ministry for the Environment, and including representatives from the Ministry for the Environment, the Ministry for Primary Industries, Treasury, Te Puni Kōkiri, the Department of Internal Affairs, the Department of Conservation, the Ministry of Business, Innovation and Employment and the Ministry of Justice (Crown/Māori Relations), and expertise from local government;
- 7 **directed** chief executives to ensure that officials seconded to the Taskforce are of high calibre;
- 8 **noted** that the taskforce will be responsible for delivering specific areas of freshwater policy work that would otherwise be the responsibility of departments;
- 9 **noted** that the Essential Freshwater work programme will link to other key work the government is undertaking, including (as described in an earlier paper on *Aligning Land-Based Sector Work Programmes*, under CBC-18-MIN-0062):
- 9.1 forest establishment (one billion trees) – which provides opportunities to also deliver significant water quality improvements;
 - 9.2 climate change policy – especially as it relates to agriculture and forestry;
 - 9.3 Three Waters work, critical to improving water quality in urban areas – being led by the Department of Internal Affairs;
 - 9.4 drinking water, and the government's response to the *Government Inquiry into Havelock North Drinking Water* – being led jointly by the Department of Internal Affairs and the Ministry of Health;
 - 9.5 the Department of Conservation's current programme for protection and restoration of freshwater ecosystems and species;
 - 9.6 regional economic development – being led jointly by the Ministry for Primary Industries and Ministry of Business, Innovation and Employment;
 - 9.7 investment in science and technology;
 - 9.8 the government's response to the report of the Tax Working Group on the role of the tax system in delivering positive environmental and ecological outcomes;
 - 9.9 the Whenua Māori Programme, seeking to sustainably develop Māori freehold land;

Report back and publicity

- 10 **invited** the Minister for the Environment and Minister of Agriculture to report back to the Cabinet Environment, Energy and Climate Committee in September 2018 with an update on progress of the Essential Freshwater work programme;
- 11 **noted** that the Minister for the Environment and Minister of Agriculture intend to establish a Freshwater Leaders Group comprising senior leaders selected from across the land-based business sector, Māori, environmental interests, local government and academia;

- 12 **noted** that:
- 12.1 on 28 May 2018, the Cabinet Business Committee considered a related paper on *Aligning Land-Based Sector Work Programmes* [CBC-18-MIN-0062], which noted that the Minister for the Environment and Minister of Agriculture intended to establish a Ministerial group on sustainable land-based sectors;
- 12.2 this Ministerial group will provide oversight and leadership across the freshwater work outlined in the paper under CAB-18-SUB-0296;
- 13 **noted** that the paper under CAB-18-SUB-0296 will be proactively released, subject to any appropriate redactions.

Michael Webster
Secretary of the Cabinet

Hard-copy distribution:

Prime Minister
Deputy Prime Minister
Minister for the Environment
Minister of Agriculture

Proactively Released

**Office of the Minister for the Environment
Office of the Minister of Agriculture**

Chair

Cabinet Environment, Energy and Climate Committee

Restoring our freshwater and waterways

Proposal

1. We seek Cabinet's agreement to an approach for restoring New Zealand's freshwater and waterways. We intend to pursue a work programme to stop further degradation, reverse past damage, and work toward addressing water and nutrient discharge allocation issues in New Zealand's freshwater management system.¹ We will provide an overall progress update to Cabinet in September 2018, and will brief and/or seek Cabinet decisions on specific issues as appropriate.

Executive Summary

2. This paper:
 - summarises the state of our waterways, the main reasons for their decline, and the roles of key organisations (paragraphs 16 to 39);
 - sets out relevant parts of our coalition and confidence and supply agreements (paragraphs 40 and 41);
 - describes progress on freshwater since the change of Government (paragraphs 42 to 59);
 - describes the challenges to addressing water issues (paragraphs 60 to 74);
 - proposes principles for, and key parts of, a work programme on freshwater (paragraphs 75 to 77), and how the work programme can be structured (paragraphs 78 to 109); and
 - proposes a multi-agency taskforce, using existing resources from across government, to work on the issues and specific deliverables (paragraphs 110 to 117).
3. We propose to call the programme *Essential Freshwater – healthy water, fairly allocated*. Stopping further degradation and loss of our freshwater resources is our first priority.
4. While the need to improve freshwater is primarily driven by environmental concerns, the economic consequences of poor water and land use are significant for New Zealand. The related paper '*Aligning land-based sector work programmes*' discusses

¹ 'Water and 'freshwater' are used interchangeably in this paper, and include surface water, groundwater and aquifer water. 'Waterways' generally refers to streams, rivers and lakes. The term 'water body' as used in the Resource Management Act 1991 (RMA) also includes wetlands and aquifers.

land use. Māori rights and interests² are also important, and these will need to be considered and addressed as part of the work programme.

5. The proposed taskforce would be led and hosted by the Ministry for the Environment (MfE). Chief executives would make high-calibre staff with key skills available for the taskforce, potentially from agencies such as the Ministry for Primary Industries (MPI), Treasury, Te Puni Kōkiri (TPK), MfE, Department of Internal Affairs (DIA), Ministry of Justice – Crown/Māori Relations, Department of Conservation (DOC) and Ministry of Business, Innovation and Employment (MBIE). Expertise from local government would also be seconded into the taskforce.
6. It is not proposed that work on three waters (drinking water, stormwater and wastewater) be included in the work of the taskforce, except where land use has effects on drinking water. The three waters work is being led separately by the Minister for Local Government and DIA.
7. Our freshwater work is one of a number of major initiatives the Government is undertaking that will drive sustainability in the land-based sectors. In the '*Aligning land-based sector work programmes*' paper, we outline proposals for Ministerial oversight and leadership across these initiatives, including the freshwater work programme outlined in this paper.
8. Many individuals and groups are making good progress towards stopping further degradation and loss of our freshwater resources and reversing past damage. We have the opportunity to get alongside and encourage them. However, we also need stronger regulatory instruments and other measures for those who need to change their practices and approaches, for example moving away from unsustainable farming systems, or investing in improved infrastructure and urban design.

Background

9. Freshwater is a precious and limited resource and a taonga of huge significance. Water is at the heart of what it is to be a New Zealander. Access to safe drinking water is a basic right, and drinking water sources must be safeguarded. The life-supporting capacity of water is critical for the habitat of indigenous freshwater species and trout and salmon.³ Water underpins our agricultural and electricity sectors and is crucial for tourism.
10. New Zealanders rightly consider they have a birthright to swim safely in our rivers and lakes and at our beaches. These are favourite places of recreation. In summer, when flows are lower and most swimming happens, you should be able to put your head under the water without getting sick, not be at risk from toxic algae, and not get out covered in slime. Waterways should be fishable and safe for food gathering.
11. Iwi and hapū want to restore the mauri to waterways subjected to pollution and stop practices that have compromised the relationship they have traditionally had with these taonga.
12. If each of our local rivers are clean enough to swim in safely and life-supporting for freshwater species, then all of our rivers will be.

² The phrase "rights and interests" is used as it is the term used by the parties and the courts in the Mighty River Power litigation: *New Zealand Maori Council v Attorney-General* [2013] 3 NZLR 31, though the nature of those rights and interests were not determined by the case.

³ Section 7 of the RMA requires particular regard to be given to 'the protection of the habitat of trout and salmon'.

13. In upland conservation areas with indigenous vegetation cover, freshwater quality is comparatively good. In many places elsewhere, freshwater biodiversity and resources are under great pressure with water quality continuing to decline, particularly in intensively farmed areas. The quality of water in urban areas is generally worse than non-urban areas. Although urban waterways account for a very small percentage of all New Zealand's streams and rivers, the impact can flow through to unswimmable rivers and urban beaches and have a substantial effect on the wider coastal environment.
14. At the last election people expressed their dissatisfaction with the state of our rivers and lakes and the policies that have led to water quality declining. There is a groundswell of public support for the Government to take the lead in doing better, building upon the strong environmental ethic of New Zealanders.
15. There is also opportunity to pursue higher value land uses with lower environmental impact, particularly using new technologies such as data-driven and automated management, robotics, and precision farming.

Freshwater in decline

16. Freshwater environments have been affected by a range of factors, including physical and hydrological modification, land use intensification, deforestation, and the introduction of non-native species.
17. The main cause of the decline in freshwater quality is runoff or leaching of nitrogen, phosphorus, sediment and pathogens (*E.coli*).⁴ Nitrogen and phosphorus are essential nutrients on land, but too much of them in water triggers excessive growth of periphyton (slime) in rivers and toxic algae in lakes. While trees can protect erodible land, the harvesting of plantation forests can increase sedimentation risk, especially if done poorly or if the trees were in the wrong place to begin with.
18. Nitrogen (in nitrate form) is the nutrient of greatest concern in the freshwater environment. Over the past 10-25 years, nitrogen levels have increased in monitored rivers and lakes nationwide, with the most significant increases being in the Waikato, Canterbury, Southland and Otago. However, while elevated phosphorus levels remain a problem in many rivers, over twice as many monitored sites showed decreases in phosphorus levels as showed increases. Factors in this improvement were retirement of erosion-prone land from sheep and beef operations, fewer direct effluent discharges and a reduction in phosphorus fertiliser use.
19. Sediment reduces water clarity and smothers the beds of waterways to the detriment of freshwater species. Increased sediment has particularly impacted on the ecosystem health of estuaries such as those in Southland. Pathogens are introduced into waterways through animal excreta, polluted stormwater and leaky sewage pipes. Due to these pathogens, and the inadequacies in drinking water management identified in the Havelock North drinking water report, we have some of the highest rates of waterborne infections and illnesses in the OECD.
20. The pressures on freshwater are illustrated by the following:
 - Between 1990 and 2012, the estimated amount of nitrogen leached from agriculture increased by 29 percent.

⁴ *E.coli* indicates the likely presence of pathogens such as campylobacter and cryptosporidium, but can itself sometimes be a pathogen.

- The increase in nitrogen load on land has been primarily due to an increase in nitrogen fertiliser use, and an increase in nitrogen from dairy cattle effluent (offset in part by a decline in sheep numbers).
- Between 1994 and 2013, nitrogen was worsening at more monitored river sites than improving (55 percent and 28 percent respectively).
- Between 1994 and 2016, the number of dairy cows nationally increased by 70 per cent (although numbers now appear to have peaked), and between 2002 and 2012 the area of dairy farm land doubled in Canterbury, Otago, and Southland.
- Between 2006 and 2015 there was twice as much deforestation (120,115 hectares) as afforestation (64,207 hectares).
- Between 2002 and 2017 the area of irrigated land increased by about 70 per cent nationally, with new technologies such as K-Line and centre pivots, but with poor control of resulting increases in farming intensity and ensuing environmental impacts.
- In the 2012-2016 period, 55 percent of nationally monitored lowland river sites were unsuitable for swimming due to *E.coli* levels.⁵
- In the 2012-2016 period, 18 percent of nationally monitored lakes were unsuitable for swimming due to *E.coli* levels. Additionally, lakes can be made unswimmable by high levels of toxic algae. (This led to Lake Taupō being closed to swimming at times this summer).
- Of the aquatic indigenous species reported on, three-quarters of fish, one third of invertebrates, and one third of plants are threatened with, or at risk of, extinction.
- Freshwater aquifers are being contaminated particularly with nitrogen. The highest concentrations are found in shallow wells in Canterbury, Waikato and Southland. Furthermore, nitrogen in groundwater is slow to reach aquifers, with nitrogen taking 50 years or more to travel through some catchments. If high nitrogen levels are present in drinking water, this can be a risk to the health of young infants e.g. 'blue baby syndrome' (methaemoglobinaemia).
- In a growing number of catchments, the volume of water allocated for people to use has reached or exceeded sustainable limits.⁶
- The first in first served water allocation model now risks locking underdeveloped land into its current use, which will disproportionately adversely affect Māori, whose lands, for historical reasons, are often underdeveloped.

21. Agricultural intensification is not only a dairy issue. In some areas intensive beef production is problematic, with poorly designed and managed intensive feedlots allowing sediment, nutrient and faecal pollution to enter streams, rivers and aquifers. On hill slopes, poorly managed intensive winter grazing causes similar but more widespread problems. This includes land practices like 'spray and pray', where slopes are sprayed off of vegetation, replanted in stock crops, and then heavily grazed in winter. Forest harvesting can also add significant sediment loads to waterways and single rotation horticulture crops can generate very high rates of nitrogen leaching.

⁵ The monitoring was for 136 river sites below 400 metres in elevation.

⁶ For example, of the 36 groundwater allocation zones in Canterbury where quantity limits have been set, 16 are at full allocation or over-allocated. There is also over-extraction from some waterways, especially smaller tributaries and streams.

22. The difficulties facing freshwater fish and invertebrates are not just from poor water quality, but also from habitat loss and barriers to fish migration from altered river flows and physical barriers (e.g. from irrigation takes, dams, culverts and flood control gates). Excessive nutrients promote algae and slime growth that can impede flows and smother stream beds that freshwater species depend on for food and habitat. These pressures together with sedimentation lead to biodiversity loss, and can particularly accumulate in the lower reaches of waterways, causing large and complex impacts.
23. Some 90 percent of wetlands have been lost since 1840, together with the ecosystem services they provide. Wetlands play a significant role in managing water quality. They capture sediment and phosphorus and cycle nitrogen, make landscapes more resilient to drought, and support a diverse range of ecosystems and species. Wetlands are highly significant to Māori. It is important to protect remaining wetlands, around 40 percent of which are on private and Māori land.
24. Sediment and weed growth are smothering estuaries and destroying shellfish beds. Effects extend out to sea, with coastal kelp beds and fisheries being adversely impacted by turbidity and pollution. Poorly flushed estuaries are particularly vulnerable to nutrients and sediment from freshwater flowing into them. Some estuaries contain legacy levels of sediment that will be difficult to mitigate with even minimal further land use intensification.⁷

Particular urban issues

25. Rivers in urban areas are closest to where most New Zealanders live. While there has been increasing control of industrial discharges and improved treatment of sewage, significant issues remain. Streams continue to be piped. Runoff from impervious surfaces such as streets, paved and roofed areas goes directly into remaining, often highly modified, waterways as stormwater. The resulting high and low flow extremes combined with modified stream banks, and lack of healthy riparian margins severely compromise in-stream biodiversity.
26. Stormwater also introduces sediment and many pollutants into waterways. These include heavy metals (such as copper and zinc) from brake pads, tyres, metal roofing, and industrial yards, and sediment from building sites and roadworks.
27. Poorly performing urban wastewater systems and networks also contribute to significant degradation of freshwater and coastal ecosystems.
28. Wet weather can see sewage overflowing into stormwater mains with sewage ending up in rivers and streams, or at beaches and in coastal waters where people recreate. This is an issue that has recently been highlighted in areas of Auckland. Stormwater management needs to improve, including completion of the separation of stormwater and sewerage systems.
29. There is evidence that upgrading urban sewage treatment plants and other large point sources to rivers can greatly improve water quality across an entire catchment or region. For example improvements to urban point source discharges across the Horizons region over the past decade have led to significant improvements in E.coli and suspended sediment concentrations. Because many of the discharges were located inland on large main-stem rivers, the improvements significantly contributed to an increase in the swimmable length of these rivers.

⁷ It is anticipated that a separate paper will be presented to Cabinet in due course on wetland and estuary protection. The proposed NPS on Indigenous Biodiversity could be an important tool for protecting wetlands.

30. In response to public pressure, Auckland Council proposes to bring forward a 30 year water quality programme to 10 years. The Council intends to invest an extra \$856m over the next 10 years to reduce sewage flows onto city beaches by between 80 and 90 percent.

Hydro generation

31. Since mid-last century the natural flow characteristics of many of our major catchments have been significantly modified by the addition of hydro generation installations and related canal or diversion structures. The general effect has been to reduce variability in flow rates to an average significantly below natural peak flows.
32. Around 60 per cent of New Zealand's electricity derives from hydro generation, which relies on ready access to freshwater. The continued operation of this generation is critical to security of electricity supply, and to our 100 percent renewable electricity target and the reduction of carbon emissions.⁸
33. Hydro generation is enmeshed in our major catchments through a series of consents for water use granted under the RMA. This significant use will be an important ongoing consideration in freshwater policy.

Role of the RMA and councils

34. Under the Resource Management Act 1991 (RMA), water quality and use is managed by regional councils, as is the control of associated land use and activities within waterways including structures and reclamation.⁹ Under the RMA, regional councils are responsible for safeguarding the life-supporting capacity of water.¹⁰ With many waterways becoming degraded over the last 25 years, councils have been failing to fulfil this statutory duty.
35. The RMA sets the framework and central government provides further direction through national policy statements (NPSs) and national environmental standards. These collectively direct regional councils and territorial local authorities (district and city councils) what to include in their plans. In turn, these plans and resource consents tell users what they can and cannot do with water, and land adjacent to it. Water Conservation Orders are another form of protection that can be applied to waterways of national significance.
36. In 2006 the then Minister for the Environment initiated an NPS on Freshwater Management (Freshwater NPS). The resulting 2010 draft NPS, from a tribunal chaired by former Principal Environment Judge Sheppard, required strong action to stop clean rivers being made dirty, especially by agricultural intensification, and to clean up dirty rivers over a generation. That draft NPS was dropped by the National Government.
37. The Sheppard principles were not adequately reflected in the Freshwater NPS issued by the next government in 2011 (with revisions in 2014 and 2017) or in any other national instrument. Instead agricultural intensification continued, ruminant

8 See the NPS for Renewable Electricity Generation 2011, which gives direction on the benefits of renewable electricity generation, including hydro.

9 See sections 13 and 30(c) of the RMA.

10 See section 5 of the RMA, Purpose. Note that the term 'regional councils' includes unitary councils.

stock numbers increased, and significant deforestation occurred (partly due to degradation of the Emissions Trading Scheme).

Role of Department of Conservation and Minister of Conservation

38. DOC has a statutory function 'to preserve as far as is practicable all indigenous freshwater fisheries, and protect recreational freshwater fisheries and freshwater fish habitats'.¹¹ The Department also administers nearly one third of New Zealand's land area, which contributes significantly to the condition of freshwater ecosystems within and beyond public conservation lands.

39. The Minister of Conservation has responsibility for the New Zealand Coastal Policy Statement (NZCPS), which sets policies around coastal lagoons and estuaries. The Minister of Conservation is also responsible for the approval of regional coastal plans, which direct how regional councils will deal with the impact of freshwater flows on estuaries, beaches and the wider coastal environment.

Government's commitments on freshwater

40. The Labour/New Zealand First coalition agreement commits the Government to:

- honour existing Crown Irrigation investment commitments;
- no resource rentals for water in this term of Parliament;
- introduce a royalty on exports of bottled water; and
- higher water quality standards for urban and rural areas, using measurements which take into account seasonal differences.

41. The Labour/Green confidence and supply agreement commits the Government to:

- provide assistance to the agricultural sector to reduce biological emissions, improve water quality, and shift to more diverse and sustainable land use including more forestry;
- safeguard our indigenous biodiversity by reducing the extinction risk for 3,000 threatened plant and wildlife species, significantly increasing conservation funding, increasing predator control and protecting their habitats;
- budget provision being made for significantly increasing the Department of Conservation's (DOC) funding;
- improve water quality and prioritise achieving healthy rivers, lakes and aquifers with stronger regulatory instruments, funding for freshwater enhancement and winding down Government support for irrigation; and
- the RMA being better enforced.

Progress on freshwater since change of government

42. The new Government has accelerated and expanded work on freshwater. Officials started work immediately on implementing the coalition agreement and the confidence and supply agreement. Officials are preparing advice on a range of options to improve water quality, achieve healthy rivers, lakes and aquifers, and protect wetlands and estuaries. Progress includes the following:

Towards a new Freshwater NPS

¹¹ See section 6(ab) of the Conservation Act 1987.

43. We want to develop a new, more comprehensive and more effective Freshwater NPS as soon as possible, and officials are working on it and other supporting regulations. These will reflect the Sheppard principles referred to above (paragraph 36), and include controls on sedimentation (rural and urban), nutrient allocation, and land use intensification. Officials have made good progress on developing thresholds for sediment in freshwater ecosystems, including preliminary national bottom lines for water clarity, turbidity, and deposited fine sediment. Work is also underway on other water quality and ecological attributes for possible inclusion in the new Freshwater NPS.

Advice from the Land and Water Forum

44. We invited the Land and Water Forum (LAWF) to provide further advice (expected in June 2018) on whether there is a consensus view on how best to:

- allocate nutrient and sediment loads by catchment, in order to achieve fairness between existing capital investment and undeveloped land, while meeting science-based bottom lines; and
- implement this without repetition of the same underlying policy debate in each regional council area.

45. We also asked LAWF to give more detailed consideration of interim limits and measures, and provide us advice on what could be done between now and 2020 to prevent further damage – or using LAWF’s words, what can be done to ‘hold the line’. LAWF’s advice will be taken into account in formulating government action.

46. As part of the development of the new Freshwater NPS, we are also open to receiving information directly from stakeholders not part of LAWF processes who wish to make contributions on these issues.

47. Many of LAWF’s previous recommendations are not yet actioned, and officials are providing advice on whether or not to implement them.

Controlling agricultural intensification and excluding stock from waterways

48. We have asked officials to develop options to address the key issue of controlling agricultural intensification as soon as possible. This might be via a new national environmental standard.

49. Officials are also developing advice on compulsory exclusion of stock from waterways after draft regulations were put on hold by the previous government due to pressure from primary sector groups. Additionally we are seeking advice on regulating high risk land management practices such as intensive feedlots, ‘spray and pray’, and intensive winter grazing on hill slopes.

50. Advice is being sought on better protecting indigenous freshwater fish species, and better controlling sources of heavy metal pollutants.

Protecting wetland and estuaries

51. We are seeking advice on how better to manage wetlands and estuaries and integrate them into the regulatory system. There is substantial ongoing research to identify appropriate bottom line attributes for estuaries, and officials are also analysing mechanisms that could be used to enhance their protection.

Winding down public funding for large-scale irrigation schemes

52. In April 2018 the Government announced the winding down of public funding for large-scale irrigation schemes, while honouring existing commitments. This was on the basis

that such schemes should be economically viable on their own without requiring significant public financing. Also, they can lead to intensive farming practices that contribute to adverse environmental outcomes, including lower water quality.

Water bottling

53. Officials have provided initial advice on how to give effect to the Labour/New Zealand First coalition agreement to introduce a royalty on exports of bottled water. Work to date has involved information gathering and exploration of options. Further work is exploring the costs and implications of options.

Investing in key support tools

54. We are investing more in the crucial nutrient management software OVERSEER®. An additional \$5m of funding has been provided in the 2018 Budget, to help ensure that nutrient management software performs well across a wider range of farms and regions, and provides farmers with more practical options to reduce their environmental impact.

Urban issues affecting freshwater

55. Officials are working to identify high priority pollutants and pressures on freshwater and coastal ecosystems related to urban land use. Issues in common with rural areas include E.coli and sediment. Additionally, urban streams suffer particularly from heavy metal pollution and the degradation of ecosystems through stream modification, like artificial channelling, and removal of riparian vegetation.

56. Officials are working with key stakeholders, including some councils, to establish a set of good management principles. These principles will guide councils, developers and others in managing urban water and development. This project is focusing largely on increasing the uptake of measures to improve ecosystem health, flood risk mitigation and general amenity through 'water sensitive urban design'.

57. There is also a range of connected government work programmes that relate to urban water outcomes. This includes the ongoing three waters Infrastructure Review (which is investigating how to achieve higher standards in the provision of drinking water and wastewater services and stormwater management) led by DIA, and work to increase housing capacity under the Urban Growth Agenda. We have asked MfE to explore how to align the efforts of these cross-agency projects so that they can contribute to good urban water outcomes.

Expectations of councils and stakeholders

58. Our overall message to stakeholders is that more needs to be done to address water quality, and more quickly. This includes better compliance, monitoring and enforcement, in respect of which draft guidelines setting out expectations for councils have been released for comment. A new unit is being established within MfE to oversee compliance with the RMA, with \$3.1 million of funding announced for it in the 2018 budget.

59. We have also asked primary sector organisations and leaders to show greater leadership and commitment to improve freshwater quality. There has been a positive response. For example, DairyNZ has identified projects to demonstrate that the sector can work with other interested parties to lead and influence farmer behaviour and achieve more sustainable land use. These projects will provide insights about lifting dairy farming environmental performance across the country. Our officials are working with DairyNZ to develop these projects.

Comment

The challenges ahead

60. Degradation of freshwater, waterways and freshwater biodiversity is continuing. National direction on water quality and ecosystem health is partial only. Enforcement of existing rules is sometimes weak, as is reporting, monitoring, governance and accountability. There are no national standards for flow management. Water infrastructure in some urban areas is inadequate. Current management frameworks struggle to deal with the connections between freshwater and coastal environments. The rights and interests of Māori are not resolved.
61. Water allocation issues have not been adequately addressed. These include: the lack of effective claw-back mechanisms for fairly reducing takes in over-allocated catchments in a timely way; ensuring that water is applied to higher value uses; the needs of non-commercial users; and availability of water for the public good (for example, drinking water supplies).
62. As noted above, a Freshwater NPS was issued in 2011, with revisions in 2014 and 2017. Among other things, the Freshwater NPS sets a number of national bottom lines for attributes of water quality and requires councils to set limits to maintain or improve water quality. However, the Freshwater NPS is not comprehensive. For example, it does not adequately address sedimentation, other key water quality attributes such as dissolved oxygen and heavy metals, or allocation of water or nutrient discharges.
63. Despite these limitations, a number of regional councils have made progress on water issues, and most are some way toward implementing the current Freshwater NPS. There has also been progress through iwi, landowners, business groups and non-profits working collaboratively with local and central government to take voluntary actions.
64. Through a combination of market conditions and shifts in policy, the recent rapid expansion of dairying appears to have ceased, at least for now. Dairy herd numbers increased rapidly from 5.1 million in 2003 to 6.7 million in 2014, but have since fallen back to 6.5 million.¹² In the absence of a robust NPS, this trend was driven largely by economics and divorced from environmental outcomes.
65. Progress on freshwater overall has been patchy and too slow. The poor outcomes we are now experiencing are a result of many systemic failures and gaps across the current freshwater management system. Appendix 1 summarises these and describes the shifts needed to achieve an ideal future state. Some shifts may require legislative change or reform, others require public debate and discussion, and capacity and capability building in organisations.
66. Protecting and restoring our freshwater needs co-operation between water users, Māori, local government and central government. LAWF, for example, used a collaborative process to facilitate dialogue and consensus across stakeholders,¹³ and this work contributed to the Freshwater NPS. However, some key – and contentious – issues have not reached consensus.

¹² 6.5 million dairy cows produce waste equivalent to about 90 million humans.

¹³ The LAWF is a sector initiative that started in 2009 and sought consensus solutions for water issues. The LAWF includes a range of stakeholders consisting of industry groups, electricity generators, environmental and recreational NGOs, iwi, scientists, and other organisations with a stake in freshwater and land management.

- 67.** Collaborative processes take a 'bottom up' approach to problem solving, and have their pluses and minuses. The pluses are the achieving of acceptable compromise solutions among diverse interests for some (but not necessarily all) issues. The minuses are that collaborative processes can take a long time and be expensive, and can experience difficulty grappling with thorny issues. On water, these thorny issues include allocation, pricing, fairness between existing uses (with their sunk capital investment) and potential new uses on underdeveloped land. Government has a duty to govern by way of taking a more 'top down' approach in making decisions when consensus is plainly not achievable.
- 68.** Achieving water quality improvements will require some adjustment in economic activity, particularly in land-based businesses. For example, improved farming methods will be needed to minimise losses of nutrients and pathogens to groundwater – employing more sophisticated and precise management and technology, and moving away from unsustainable farming systems. Lower impact land uses will be needed in some areas. Making these changes will sometimes come at a cost and require investment.
- 69.** Continuing work is also needed with Māori to address their rights and interests in water.
- 70.** Improving urban waterways will mean significant investment in improved infrastructure and urban design – not only the sewerage and stormwater pipes, but in such things as reducing impervious surfaces, reducing contaminants like heavy metals, sediment and litter, and restoring habitats.
- 71.** Regulatory controls on freshwater inputs (including through the Freshwater NPS) need to be integrated with the Minister of Conservation's regulatory role over the coastal marine area through the NZCPS and approving regional coastal plans.
- 72.** Many of the issues are challenging – technically, legally, economically, socially and culturally. For example, there are some gaps in science and information, with good information available for water quality of monitored sites, but gaps in data about other aspects of waterway health. Pollution sources are often diffuse and difficult to measure,¹⁴ and cumulative in nature. Legacy issues exist, and commercial interests are at play. It takes time to engage and consult with stakeholders, who can hold strong and divergent views.
- 73.** In short, there is some way to go to turn our ambition and the public's broad support for action on freshwater into a fully coherent policy framework, widespread change in behaviour, and healthier waterways and freshwater habitat. Meanwhile, as discussed below, there is a broad range of actions that can be taken within the RMA and water management systems as they currently stand.
- 74.** We are determined to make significant progress in this term of government. Cleaner, healthier water will be good for the environment and freshwater life, and for all human users of water. We can leave a proper legacy for future generations.

¹⁴ 'Point source' refers to a discharge coming from a single identifiable source, e.g. a pipe – whereas a 'diffuse source' is not specifically identifiable, e.g. runoff or leaching through the soil. Diffuse sources account for more than 95% of the nutrients that end up in freshwater.

Work programme: *Essential Freshwater – healthy water, fairly allocated*

75. We propose an *Essential Freshwater* work programme with three key parts:

- **Stopping further degradation and loss** – taking a series of actions now to stop the state of our freshwater resources, waterways and ecosystems getting worse (i.e. to stop adding to their degradation and loss),¹⁵ and to start making immediate improvements so that water quality is materially improving within five years
- **Reversing past damage** – promoting restoration activity to bring our freshwater resources, waterways and ecosystems to a healthy state within a generation, including through a new Freshwater NPS and other legal instruments
- **Addressing water allocation issues** – working to achieve efficient and fair allocation of freshwater and nutrient discharges, having regard to all interests including Māori, and existing and potential new users.

76. We have an additional freshwater goal for everyone to have access to safe drinking water. This work will require work across the environment and local government portfolios.

77. We propose that, in advancing the *Essential Freshwater* work programme, the following principles apply:

- Ensure that central government plays an effective leadership role on freshwater issues, while retaining appropriate decision-making at local government level.
- Establish policies and solutions that are enduring; which means they need to be science-based, reflect mātauranga Māori, predictable, understood by the public, and underpinned by effective regulation and enforcement.
- Work with landowners, water users, Māori, communities and local government to this end.
- Provide for flexibility and adaptability so that as knowledge and technology evolve and the climate changes, policy settings and rules can adapt.
- Promote an integrated approach to freshwater management, within catchments, across issues, and with the marine and coastal environment.
- Promote sound environmental outcomes, and in doing so seek to optimise social, cultural, economic development and national identity outcomes.
- Address the rights and interests of Māori in freshwater and the development aspirations of owners of Māori freehold land, consistent with the Crown's Treaty obligations.
- Provide for intergenerational equity.
- Ensure that the benefits of commercial water use are not captured solely by existing users, but that potential new users can access water so that water is applied to higher value uses with lower environmental impacts.

¹⁵ These include rivers, lakes, aquifers, wetlands and estuaries, and the biodiversity they support.

Three key parts of *Essential Freshwater*

Stopping further degradation and loss

78. While freshwater degradation is likely to continue in some areas – where, for example, it can take many decades for increased nitrogen from land to show up in waterways – we want to act quickly to stop adding greater levels of pollutants and contaminants to stressed waterways.
79. We expect to make significant progress working within the existing legislative framework (although we would explore some legislative change in the short term if this was likely to generate substantial gains).
80. We have listed above under *Progress on freshwater since change of government* a range of issues that are already being worked on by officials and LAWF.
81. Other actions and policies that may help stop further degradation include:
- getting young people employed to work on improving the health of waterways;
 - riparian management and planting on intensively managed land to filter and absorb silt and nutrients; and
 - ensuring that urban development and infrastructure aligns with our freshwater goals, including completion of separation of sewerage and stormwater systems.
82. Many in the primary sectors recognise the need for change and are already driving that change, taking action on the ground that is halting further degradation. However, there are still others that need to change their practices.
83. We also propose to pilot and test new ways of working, highlighting and encouraging further sector leadership, and building evidence for future policy and/or investment such as demonstrating the Good Farming Practice: Action Plan for Water Quality; and exploring how best-practice sustainable land use can be recognised and encouraged.
84. The Primary Sector Council will have a chance to contribute ideas to achieving outcomes for freshwater and can be part of driving the work programme.
85. We will support council RMA implementation by identifying exemplary councils across varying aspects of good practice in water regulation and management, using those exemplars as a guide, and considering what further national direction on implementation may be appropriate. We will also develop good management principles to support water-sensitive urban design.

Reversing past damage

86. Reversing past damage will require a long-term programme to tackle the ongoing effects of past changes to waterways, including:
- physical characteristics of waterways (e.g. the effects of past channelisation and wetland severance);
 - vegetation in catchments and riparian areas;
 - pollutants that do not flush out naturally;
 - weeds and pests; and
 - reduced or lost ecosystems and species/populations.

87. DOC and councils are already active in some places, and many communities have embarked on freshwater ecosystem restoration initiatives such as for wetlands. There is also an active science effort to develop new techniques for assessing and improving waterway health.

Addressing water allocation issues

88. Progressing fair and effective allocation of the right to take water and discharge nutrients is becoming more pressing because:

- the increased scarcity of water resources reduces supply (in part, due to introducing limits on takes and discharges) at the same time as demand has increased;
- introducing limits means that decisions on how to allocate the rights to use resources are unavoidable – not making a decision is actually a decision for the status quo; and
- part of the approach requires addressing Māori rights and interests in freshwater including the development aspirations of owners of Māori freehold land.

89. The work will look for opportunities to increase the efficiency and fairness from the use of New Zealand's freshwater resources especially, through:

- incentivising reductions in wastage of water and minimising nutrient discharges;
- enabling higher value uses to access water and to discharge nutrients;
- the development and use of more adaptable and flexible tools to manage diffuse agricultural discharges;
- reducing the capitalisation of the right to use water or nutrient discharges into the value of the business/land; and
- enabling new users to access the rights to take water and discharge nutrients, including Māori landowners who own a disproportionately high percentage of under-developed land.

90. The work will also look at ways that the allocation system can support our work programme on stopping further degradation and reversing past damage.

91. The Crown has acknowledged Māori rights and interests in freshwater and has given assurances to the Supreme Court that the Crown will address these.

Support processes

92. In support of this work, we will need to:

- *Engage New Zealanders* – keep New Zealanders informed and involved, taking the public along with us as we stop further degradation and loss, reverse past damage, and address water allocation issues.
- *Fix water and land use fundamentals* – address systemic failures and gaps in the system for managing freshwater and land use; and establish solutions for water quality, use, allocation and storage that are effective, durable, and future-proofed for a changing climate; and work with the land use sectors to move toward higher value land uses with lower environmental impacts.
- *Track and demonstrate progress* – establish a framework of outcomes and indicators that tracks progress towards achieving our freshwater goals.

93. *Essential Freshwater* also needs to link to other major initiatives the Government is undertaking, including:

- Forest establishment – which provides opportunities to also deliver significant water quality improvements but can also increase sedimentation risks during and after harvest if not properly managed.
- Climate change policy – especially as it relates to agriculture and forestry and the risks posed by droughts and floods.
- The Three Waters work, critical to improving water quality in urban areas – being led by DIA.
- Drinking water, and the Government’s response to the *Government Inquiry into Havelock North Drinking Water* – being led by DIA.
- DOC’s current programme for protection and restoration of freshwater ecosystems and species.
- Regional economic development – being led jointly by MPI and MBIE.
- Investment in science and technology.

94. The work of the Tax Working Group (TWG) may also be relevant in terms of longer-term policy settings. The TWG is developing advice on the role of the tax system in delivering positive environmental and ecological outcomes. The TWG will provide its initial report in September 2018, and its final report in February 2019.

95. We propose reporting back to Cabinet in September 2018 with an update on progress on the *Essential Freshwater* programme.

Engage New Zealanders

96. The New Zealand public sees water-related issues as the most important environmental issue facing this country¹⁶ with recent public opinion polls showing around three-quarters of New Zealanders are concerned about poor quality water and pollution of lakes and rivers.¹⁷

97. It is important that we keep New Zealanders informed and involved in the broad range of freshwater issues and take them with us as we stop further degradation of water, reverse past damage, and address allocation. Public dialogue to date has seen a particular emphasis on the impact of dairy intensification and exports of bottled water.

98. Community restoration programmes, both urban and rural, are an important way of engaging people in freshwater management, and helping them understand the complexities of catchment systems.

99. Farming groups, environmental non-government organisations, freshwater experts, Māori, the Primary Sector Council, stakeholders, and other influencers have a valuable part to play in public debate on water issues, and via direct input to the Government and officials.

16 Hughey, K.F.D, Kerr, G.N. and Cullen, R. 2016. Public Perceptions of New Zealand’s Environment: 2016. EOS Ecology, Christchurch.

17 The Water New Zealand Consumer Survey 2017 shows 73% are concerned about poor quality in their waterways; Colmar Brunton research for Fish and Game New Zealand shows 75% are ‘extremely’ or ‘very’ concerned about pollution of lakes and rivers.

100. We propose to develop a public engagement programme, so that New Zealanders have the information they need to understand the challenges, complexities and opportunities in restoring our water quality. This will assist them to have input and take action on water quality issues.
101. The high level of public interest in freshwater quality also provides a way into a continuing national dialogue about the choices facing New Zealanders in shifting to a more environmentally sustainable society and economy given the fundamental role that freshwater management has in achieving this.

Fix water and land use fundamentals

102. As noted above and in Appendix 1, there are systemic failures and gaps across the current freshwater management system, many of which will require some time to work through. Fundamental governance, decision-making and planning issues may extend beyond freshwater management to the resource management and planning framework as a whole, and thus require broader legislative change.
103. Our proposed actions within the current system will directly inform the extent to which deeper reform may be required. This aligns with the proposed timeframe for the Urban Growth Agenda that is looking to make shifts in how the planning system operates within urban areas. In both these work programmes there will be parallel work streams which will focus on delivering within the current system, while considering what changes may be needed to the system as a whole.
104. A key issue is the pace, consistency and practice that councils are applying when implementing the Freshwater NPS. We are concerned that implementation is highly variable across councils and timeframes are too long in many cases.¹⁸ We would like to see a regulatory framework that:
- accelerates timeframes for getting plans and new regulatory controls in place, especially those relating to water quality;
 - reflects the public good aspects of freshwater management;
 - avoids each proposed plan being challenged through the courts over essentially the same matters, wasting time and money;
 - addresses the rights and interests of Māori including the development aspirations of owners of Māori freehold land; and
 - allows much faster adjustments of rules in future in response to new science and technology.

Track and demonstrate progress

105. We will need to establish a framework of indicators, mapped against high-level objectives for freshwater, that track and demonstrate progress toward achieving our freshwater goals. As it can take a number of years for policies and interventions to translate into better water quality, it is important we are able to monitor whether these are affecting behaviours in the way we expect. This will also help us demonstrate progress to the public and stakeholders. Indicators might include such things as the percentage of waterways fenced, amount of erodible hill country afforested, or improvement in urban three waters infrastructure.

¹⁸ The average timeframe for a plan change is eight years, although it may take considerably longer.

106. Progress will also be tracked against the Government's overall goals for the land-based sectors, to which action on freshwater has linkages as discussed below.

Current working arrangements on freshwater

107. Within government, policy work on freshwater issues is currently being carried out by a joint Water Directorate of officials from MfE and MPI. The Directorate is located at MfE's premises, and comprises mainly MfE officials.

108. DOC has a broad range of statutory responsibilities for freshwater systems and operates at a policy and operational level. Further consideration is needed on how best to integrate DOC's policy work with that of MfE and MPI.

109. DIA is leading separate but related work on three waters (drinking water, stormwater and wastewater). The work aims to create a strong and sustainable three waters system with work streams focused across: regulatory and institutional settings; funding and finance; and capacity and capability. Addressing the increasing challenge of affordability for small communities in building and maintaining three water services will be an important consideration.

A freshwater multi-agency taskforce

110. The freshwater issues we need to resolve have strong linkages with the work the Government has initiated on sustainable agriculture, freshwater ecosystem restoration, rebuilding our regions, planting a billion trees over the next 10 years, and climate change. All this work is underpinned by the vision the Government has for our land-based sectors, which is the subject of a related Cabinet paper titled '*Aligning land-based sector work programmes*'. In that paper we outline proposals for a Ministerial Group on sustainable land-based sectors which would provide oversight and leadership across these key areas of work, including the freshwater programme outlined in this paper.

111. To advance our *Essential Freshwater* work programme we propose establishing a multi-agency taskforce, which would be directed to make recommendations as soon as possible on steps to achieve the three key parts of the programme.

112. The taskforce would bring together high-calibre officials with key skills from across agencies and local government to deliver a series of specific proposals for the Ministerial reference group to consider before putting them (as appropriate) to Cabinet. Relevant Ministers would require their chief executives to commit senior staff capacity to the taskforce.

113. Experience has shown that such approaches can expedite progress. To be successful the taskforce should:

- have access to expertise from agencies across the public sector;
- have clear and specific deliverables and timeframes for delivery and a strong mandate, with deliverables including detailed plans of action on land use, and technology / economic development opportunities;
- be able to engage Māori, and with key stakeholders, including through the Primary Sector Council;
- be made up of senior policy thinkers, selected by their respective departmental chief executives for their skills and experience who bring the expertise and viewpoint of their department and achieve resolution across government;

- have the necessary range of skills and disciplines, including strategic policy, science, legal and economic skills;
 - have a flat management and governance structure, reporting to Ministers with as little hierarchy as possible; and
 - be independent of any particular agency (except insofar as administrative arrangements are necessary).
- 114.** The taskforce would be led and hosted by MfE. MfE would work with agencies such as MPI, Treasury, TPK, DIA, DOC, and MBIE to establish the taskforce. For example, the involvement of MBIE is relevant because resolving land use challenges will require the use of new technologies, commercial development, and maximising the economic development opportunities presented. The role of the Crown/Māori Relations Unit would need to be determined. The taskforce could also be assisted by a technical advisory group of experts, including freshwater scientists. Expertise from local government would also be seconded to the taskforce.
- 115.** Members of the taskforce would liaise with the agencies from which they are drawn with the intention that allied work on land use practices and technology/economic development opportunities would be progressed at the same time. The timing for release of the results of the taskforce's work and allied initiatives would be coordinated as a signal of the whole-of-government approach being adopted.
- 116.** It is not proposed that the work on three waters led by DIA, be included in the work of the taskforce, except to where land use has effects on drinking water.
- 117.** We intend to establish a Freshwater Leaders Group to provide a sounding board for policy, input ideas, challenge analysis and lead their sectors. This group would be comprised of senior leaders selected from across the land-based business sector, iwi, environmental interests, local government and academia. Participation would be unpaid.

Consultation

- 118.** The following Departments have been consulted and their views are reflected within this paper: Treasury; Ministry of Business, Innovation and Employment; Department of the Prime Minister and Cabinet; Te Puni Kōkiri; Ministry of Justice; Department of Internal Affairs; Land Information New Zealand; Crown Law Office; Ministry of Health; and Department of Conservation.

Financial implications

- 119.** Policy work will be undertaken within baselines. There are no specific financial implications within this paper. If, once further policy work is undertaken, any proposals within this paper do have financial implications, these will be considered by Cabinet at that point.

Human rights

- 120.** There are no human rights implications in this paper.

Legislative implications

121. Some of the proposals described above will require legislative or regulatory change to implement. This is likely to include amendments to existing regulations as well as new regulations under the RMA. We will provide further advice on each of the potential regulatory mechanisms in our report back in September 2018.

Regulatory impact analysis

122. There are no regulatory implications of this paper and a regulatory Impact analysis has not been prepared.

Gender implications

123. There are no gender implications in this paper.

Disability perspective

124. There are no disability implications in this paper.

Publicity

125. We propose that this paper be proactively released, subject to any necessary redactions. Our offices will jointly develop a communication plan prior to release.

Recommendations

We recommend that Cabinet:

Vision

1. **Affirm** that:

- 1.1. Freshwater is a precious and limited resource and a taonga of huge significance, and at the heart of what it is to be a New Zealander;
- 1.2. Access to safe drinking water is a basic right, and drinking water sources must be safeguarded;
- 1.3. The life-supporting capacity of water is critical for the habitat of indigenous freshwater species and trout and salmon;
- 1.4. New Zealanders rightly consider they have a birthright to swim safely in our rivers and lakes and at our beaches, and that waterways should be fishable and safe for food gathering;
- 1.5. Mauri must be restored to waterways subjected to pollution and practices that have compromised the relationship that Māori have traditionally had with these taonga;
- 1.6. If each of our local rivers is clean enough to swim in safely and life-supporting for freshwater species, then all of our rivers will be;

Establishing a work programme

2. **Agree** that the Government's work programme will be called *Essential Freshwater – healthy water, fairly allocated*, and comprise three key parts:

- 2.1. **Stopping further degradation and loss** – taking a series of actions now to stop the state of our freshwater resources, waterways and ecosystems getting worse (i.e. to stop adding to their degradation and loss), and to start making immediate improvements so that water quality is materially improving within five years
- 2.2. **Reversing past damage** – promoting restoration activity to bring our freshwater resources, waterways and ecosystems to a healthy state within a generation, including through a new Freshwater NPS and other legal instruments
- 2.3. **Addressing water allocation issues** – working to achieve efficient and fair allocation of freshwater resources, having regard to all interests including Māori, and existing and potential new users;
3. **Note** that everyone having access to safe drinking water is a further freshwater goal that will be worked on across the environment and local government portfolios;
4. **Note** that in support of the *Essential Freshwater* work programme, there will be processes to:
 - 4.1. Engage New Zealanders,
 - 4.2. Fix water and land use fundamentals, and
 - 4.3. Track and demonstrate progress;

Adopting principles to guide work on freshwater

5. **Agree** that in advancing the Government's *Essential Freshwater* work programme, the following principles will apply:
 - 5.1. Ensure that central government plays an effective leadership role on freshwater issues, while retaining appropriate decision-making at local government level;
 - 5.2. Establish policies and solutions that are enduring, which means they need to be science-based, reflect mātauranga Māori, predictable, understood by the public, and underpinned by effective regulation and enforcement;
 - 5.3. Work with landowners, water users, Māori, communities and local government to this end;
 - 5.4. Provide for flexibility and adaptability so that as knowledge and technology evolve, and the climate changes, policy settings and rules can also adapt;
 - 5.5. Promote an integrated approach to freshwater management, within catchments, across issues, and with the marine and coastal environment;
 - 5.6. Promote sound environmental outcomes, and in doing so seek to optimise social, cultural, economic development and national identity outcomes;
 - 5.7. Address the rights and interests of Māori in freshwater¹⁹ and the development aspirations of owners of Māori freehold land, consistent with the Crown's Treaty obligations;
 - 5.8. Provide for intergenerational equity; and
 - 5.9. Ensure that the benefits of commercial water use are not captured solely by existing users, but that potential new users also have access to water and its benefits;

¹⁹The phrase "rights and interests" is used as it is the term used by the parties and the courts in the *Mighty River Power* litigation: *New Zealand Maori Council v Attorney-General* [2013] 3 NZLR 31, though the nature of those rights and interests were not determined by the case.

Establishing a multi-agency taskforce

6. **Invite** the Minister for the Environment and Minister of Agriculture to establish an officials' taskforce to implement the work programme, hosted by the Ministry for the Environment, and including representatives from the Ministry for the Environment, the Ministry of Primary Industries, Treasury, Te Puni Kōkiri, the Department of Internal Affairs, the Department of Conservation, the Ministry of Business, Innovation and Employment, and expertise from local government;
7. **Direct** chief executives to ensure that officials seconded to the Taskforce are of high calibre;
8. **Note** that the taskforce will be responsible for delivering specific areas of freshwater policy work that would otherwise be the responsibility of departments;
9. **Note** that *Essential Freshwater* will link to other key work the Government is undertaking including (as described in the related paper titled "*Aligning Land-based Sector Work Programmes*"):
 - 9.1. Forest establishment (one billion trees) – which provides opportunities to also deliver significant water quality improvements;
 - 9.2. Climate change policy – especially as it relates to agriculture and forestry;
 - 9.3. Three Waters work, critical to improving water quality in urban areas – being led by the Department of Internal Affairs (DIA);
 - 9.4. Drinking water, and the Government's response to the *Government Inquiry into Havelock North Drinking Water* – being led jointly by DIA and the Ministry of Health;
 - 9.5. The Department of Conservation's current programme for protection and restoration of freshwater ecosystems and species;
 - 9.6. Regional economic development – being led jointly by the Ministry for Primary Industries and Ministry of Business, Innovation and Employment;
 - 9.7. Investment in science and technology;
 - 9.8. The Government's response to the report of the Tax Working Group on the role of the tax system in delivering positive environmental and ecological outcomes; and
 - 9.9. Whenua Māori Programme, seeking to sustainably develop Māori freehold land;

Report back and publicity

10. **Invite** the Minister for the Environment and Minister of Agriculture to report back to Cabinet in September 2018 with an update on progress of *Essential Freshwater*;
11. **Note** our intention to establish a Freshwater Leaders Group comprising senior leaders selected from across the land-based business sector, Māori, environmental interests, local government and academia;

12. **Note** that the related paper '*Aligning land-based sector work programmes*' proposes to establish a Ministerial Group on sustainable land-based sectors which would provide oversight and leadership across the freshwater work outlined in this paper;

13. **Agree**, subject to any necessary redactions, that this paper be proactively released.

Authorised for lodgement.

Hon David Parker
Minister for the Environment

Hon Damien O'Connor
Minister of Agriculture

Proactively Released

Appendix 1: Key Shifts Needed in New Zealand's Freshwater Management System, to an Ideal Future State

Current state ...	In an ideal future state ...
Governance and decision-making	
Central government has priorities that may be in tension with policies relating to freshwater, including between various national policy statements and standards under the RMA.	Central government's policies and priorities align so they work collectively to value the environment and freshwater more and optimise overall economic, social, environmental and cultural values.
The relationship between central government's broad policy and priorities and local government policy and priorities can be unclear and sometimes in conflict.	Central and local government policy and priorities are aligned and decision-making (including local plan development) is transparent and consistent and proportionate to the national significance of decisions being made.
There is a wide variation in the capability and performance of councils.	All councils meet good practice and have access to capable people.
There is a lack of transparency and public trust in consenting decisions.	There is transparency and public trust in the consenting system.
Māori rights and interests	
How to recognise Māori rights and interests is not yet fully resolved.	Māori rights and interests are recognised and provided for.
Planning framework (for freshwater and land use)	
The current planning process can in practice be sluggish, litigious, unresponsive to new information, and move only when situations become critical.	The planning process is proactive and facilitates/encourages timely responses to emerging evidence and trends. Parties have strong incentives to engage, reach and maintain consensus.
Existing users' expectations	
Existing users often assert that their current time-limited use / discharge rights are their property, and have expectations they will continue indefinitely.	It is clearly understood there is no right to pollute; and there is broad understanding that rights to use water / discharge do not endure perpetually, and changes to them should be expected – within appropriate frameworks.
Managing all aspects of water quality, quantity and ecosystem health	
Not all aspects of water quality, quantity and ecosystem health are considered in resource management decisions.	All key aspects of water quality, quantity and ecosystem health are considered, and where appropriate, are specified in regulatory instruments (such as an NPS).
Allocation and economic efficiency	
Many externalities are not factored into water and land use decisions, distorting investment and management decisions.	Relevant externalities are recognised and factored into investment and management decisions of water users and dischargers.
Science and information	
There are gaps in science and information and in tools to model outcomes	Key gaps in science and information are identified and addressed, and accurate tools are available to model outcomes.
Compliance, monitoring and enforcement	
Compliance, monitoring and enforcement can be patchy and councils can under-invest in CME and be reluctant to take enforcement action	All councils have a culture of strong compliance action, including taking enforcement proceedings where appropriate.